REDESCRIPTION OF *ARIOMMA BREVIMANUS* (KLUNZINGLER, 1884), A RARE STROMATEOID FROM THE GULF OF AQABA (RED SEA).

by

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ASTRACT.– *Ariomma brevimanus* (Klz.) has the following diagnostic feature : elongated body, depth 25.7 % of standard length, 1D X, 2D I + 13 - 15, A II + 15, P 24, peduncle cylindrical in cross section with two fleshy keels on both sides, eyes with well developed adipose tissue, vomer and palatines toothless, pharyngeal sac present behind the last gill arch, caudal skeleton containing two hypurals and three epurals, vertebrae 13 + 17 + 1, colour dark brown dorsally, ventral surface and sides silver.

RÉSUMÉ.– Les principales caractéristiques d'*Ariomma brevimanus* (Klz.) sont les suivantes : corps allongé, hauteur égale à 25.7 % de la longueur standard, 1D X, 2D I + 13 - 15, A II + 15, P 24, pédoncule caudal effilé et de section cylindrique, avec deux quilles cutanées de chaque côté, tissu adipeux autour des yeux, os vomérien et palatins dépourvus de dents, squelette caudal avec deux éléments hypuraux et trois éléments épuraux, formule vertébrale 13 + 17 + 1, dos brun foncé, ventre et côtés argentés.

Keywords : Pisces, Ariommidae, Ariomma brevimanus, taxonomy, ISW Aqaba Gulf.

The family Ariommidae has only one genus *Ariomma* Jordan & Snyder, 1904 which is divided into two groups of species, those with deep bodies and those with elongated bodies. Most species with elongated bodies, including *A. lurida* Jordan & Snyder, 1904, *A. evermanni* Jordan & Snyder, 1907, *A. bondi* Fowler, 1930, *A. nigriargentea* (Ginsburg, 1954), *A. melana* (Ginsburg, 1954), *A. multisquamis* (Marchal, 1961), occur in the Tropics, Hawaii, Japan and western North Atlantic.

Two species of *Ariomma* have been recorded from northern part of the Red Sea : *A. brevimanus* (Mlz.), described from a single specimen from Qoseir (Egypt) and *A. dollfusi* (Chabanaud, 1930) from the Gulf of Suez. However, no further records of *A. brevimanus* have appeared since 1884 (Haedrich, 1968; Botros, 1971), Haedrich (1967) suggested that *A. dollfusi* and *A. indica* (Day, 1870) from Indian Ocean and Sea of China were either closely related or even identical. *A. brevimanus*

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was also described from southern Japan (Tabeta and Ishida, 1975 ; Karrer, 1984).

The present paper redescribed a second specimen of a rare species of *Ariomma*. The first one was found over a 100 years ago (Chambers, personnel communication). There are no prior records of *Ariomma* from this part of the Red Sea.

Ariomma brevimanus (Klz., 1884)

Cubiceps brevimanus Klunzinger, 1884. Die Fische des Roten Meers. Tabl. XII, fig 3.
Ariomma brevimanus (Kilz.,1884) : Haedrich (1967). *Bull. Mus. Comp. Zool., Harvard*, 135 (2) : 31-36.

Specimens examined.
MSS A94 1984, 780 mm TL, was collected about 10 km south of Aqaba following an explosion of dynamite at a depth of more than 80 m during a geophysical survey in May 1984. Two other specimens, 415 and 420 mm in total length (TL) were obtained from the local fish market, Aqaba (one of them was dissected for examination).

Description.
Body elongated (Pl. I, A) with depth nearly equal to head length. Two distinctly separate dorsal fins with an interdorsal space 6.73 per cent of standard length (Pl. I, B). First dorsal fin originates behind pectoral fin, with 10 spines, folding into a groove, the first spine about 17 per cent of 3rd which is the longest, last spine much shorter than the first, all spines slender and brittle. Second dorsal fin with one spine and 13 rays, the anterior a little longer than those which follow. Anal fin originates under the 5th ray of the second dorsal fin with 2 spines and 15 rays, the last ray longer than anterior rays and finlet like, in appearance (Pl. 1, C). Anal fin base closer to the caudal fin than the second dorsal in one specimen (680 mm SL). The second dorsal and anal rays anteriorly close - set becoming more widely spaced posteriorly. Pectoral fin short, with 24 rays reaching the 7th dorsal spine and longer than the ventral fin. Pelvic fins with one long spine and 5 rays, folding into a groove, attached to the body by a membrane, the groove runs up to the anus. Caudal peduncle cylindrical in cross section with two fleshy keels on both sides. Caudal fin deeply forked, caudal skeleton containing two hypural elements, hypural 1 + 2 + 3 and 4 + 5 + 6 fused (Pl. I, D) and three epurals Vertebrae 13 + 17 + 1.

Lateral line high on the body, following dorsal profile with 45 pored scales, originating on the operculum and terminating at the beginning of caudal peduncle, above the last anal ray, in two scales.

Cleft of the mouth narrow, the snout obtuse, minute teeth in the jaws, no teeth in the jaws, no teeth on the vomer and palatines. Maxillae scarcely reaching to under the eye. Two nostrils on the top of the snout, the posterior pair slit-like.

Opercle and preopercule thin, covered with scales, 6 branchiostegals. Eyes large, with well developed adipose tissue. Gillrakers (10 - 1 - 19) toothed on the

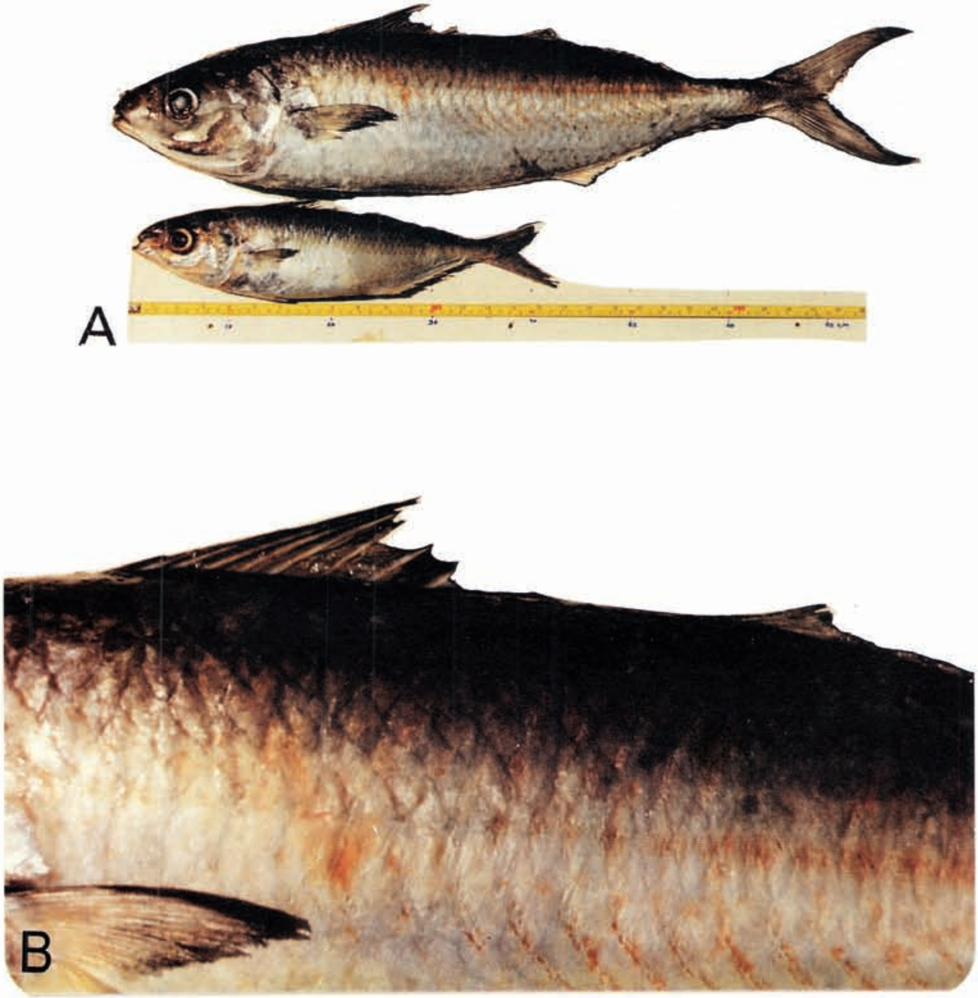
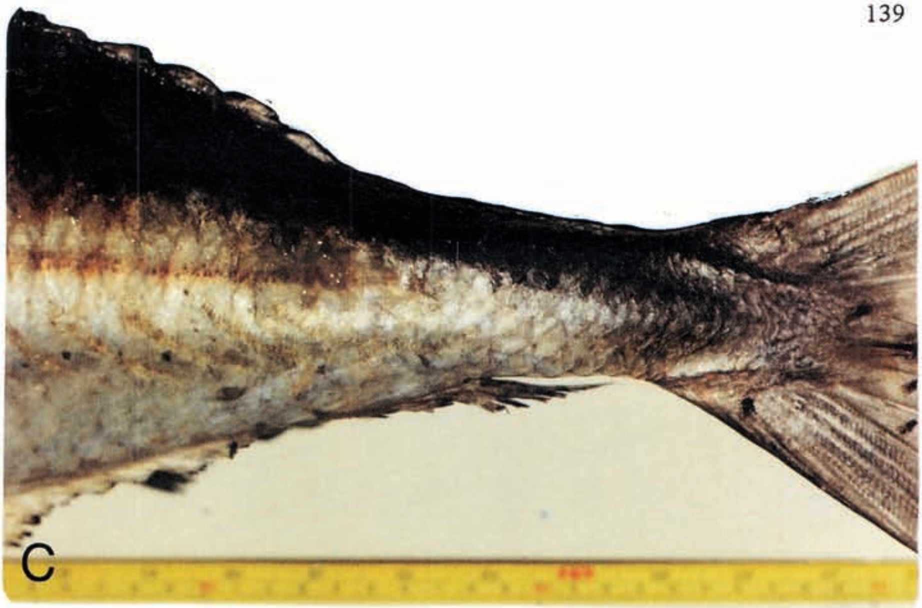


Plate I. – A - View of two complete specimens of *A. brevimanus*

- B - The interdorsal space and position of the lateral line in *A. brevimanus*
- C - Posterior portion of *A. brevimanus*, showing the asymetrical termination of 2nd dorsal and anal fins
- D - Caudal skeleton of *A. brevimanus*, 415 mm TL. coloured by Rose Bengale. 1 - Uroneural 1; 2 - Uroneural 2; 3 - Hypural 4 + 5 + 6; 4 - Urostylar vertebra; 5 - Hypural 1 + 2 + 3; 6 - Haemal spine.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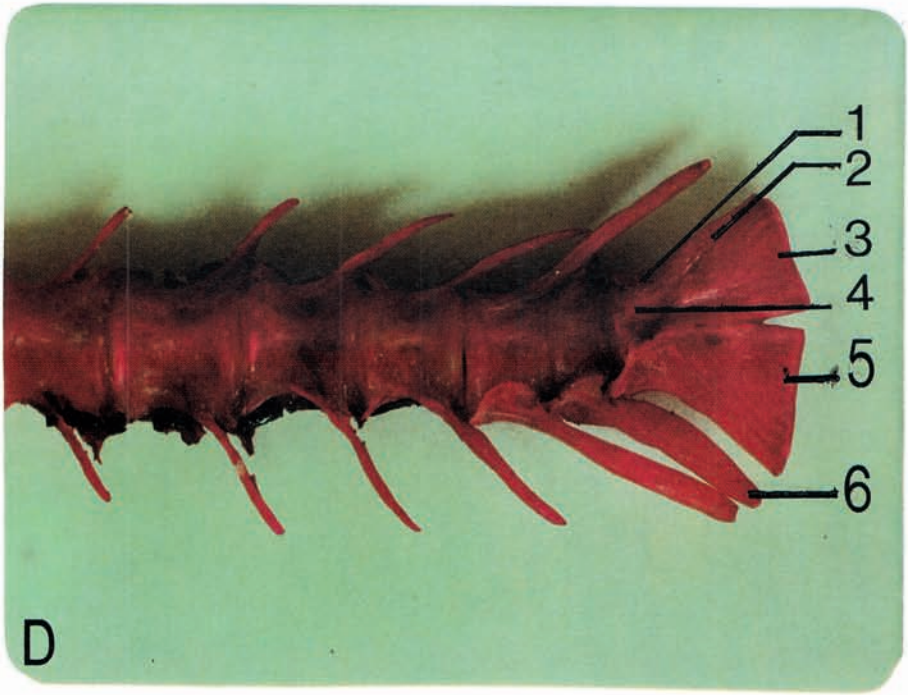
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inner edge, less than half the length of the filaments. Pharyngeal sac present behind the last gill arch (visible in X -ray).

Scales large, cycloid, thin and deciduous, extending on the back to the level of anterior border of the eyes. Subdermal mucus glands abundant all over the body, especially in the head region. Morphometric measurements are shown in Table I, for the two preserved specimens.

Coloration.

In fresh specimen, dark brown dorsally, ventral surface and sides silver, first dorsal fin with black membrane, ventral fin pale, the other fins dusky. Second dorsal, ventral and anal fin with black margin. Mouth and gill cavity dark.

Table I. -- Measurements of two specimens of *Ariomma brevimanus* (Klz) from the Gulf of Aqaba.

Standard length (mm)	680	375
In per cent of st. length :		
Head length	25.73	25.60
Pectoral fin length	12.73	11.73
Ventral fin length	7.55	8.8
Depth	25.72	24.93
Caudal peduncle	6.18	6.93
Interdorsal space	6.73	6.82
Predorsal distance	32.35	32.00
Preanal distance	63.97	62.67
Head length (mm)	175	96
In per cent of head length :		
Snout	34.28	34.38
Eye diameter	18.86	20.83
Postorbital length	46.86	44.79

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REFERENCES

BOTROS, G.A., 1971. – Fishes of the Red Sea. *Oceanogr. Mar. Biol. Ann. Rev.*, 9 : 321-348.

CHABANAUD, P., 1930. – Description d'un nouveau *Cubiceps* (Pisces Stromateidae) de la Mer Rouge. *Bull. Mus. Hist. Nat. Paris*, 2 Ser. : 519-523.

FOWLER, H.W., 1930. – The fishes obtained by Mr. James Bond et Grenada, British West Indies in 1929. *Proc. Acad. Nat. Sci. Philadelphia*, 82 : 269-277, 2 figs.

GINSBURG, I., 1954.– Four new fishes and one little known species from the east coast of the United States including the Gulf of Mexico. *J. Wash. Acad. Sci.*, 44 : 256-264, 6 figs.

HAEDRICH, R.L., 1967. – The stromateoid fishes : systematics and a classification. *Bull. Mus. Comp. Zool., Harvard*, 135 (2) : 31-136, 56 figs.

– 1968. – First record *of Ariomma* (Pisces, Stromateoidei) from the South Pacific, and comments on the elongate species of the genus. *Bull. Mar. Sci.*, 18 (1) : 249-260.

JORDAN, D., SNYDER, J.O., 1904. – Notes on the collection of fishes from Oahu Island and Laysan Island, Hawaii, with description of four new species. *Proc. U.S. Nat. Mus.*, 27 (1377) : 939-948.

– 1907. – Notes on fishes of Hawaii, with description of new species. *Dept. Comm. Lab. Bull. Bur. Fish.*, 26 : 205-218, 2 pls.

KARRER, C., 1984. – Notes on the synonymies of *Ariomma brevimanum* and *A. luridum* and the presence of the latter in the Atlantic (Teleostei, Perciformes, Ariommatidae). *Cybium*, 8 (4) : 94-95.

KLUNZINGER, C.B., 1884. – Die Fische des Roten Meers. Eine kritische Revision mit Bestimmungs - Tabellen . Acanthopteri. Stuttgart, 133 pp., 13 pls.

MARCHAL, E., 1961. – Description d'une nouvelle espèce de *Paracubiceps* (Belloc), *Paracubiceps multisquamis* n. sp. (Poisson Téléostéen). *Bull. Mus. Hist. Nat. Paris*, 2e ser., 33 (5) : 487-491, 2figs.

TABETA, O., K. ISHIDA, 1975. – Occurrence of the strommeoid fish *Ariomma brevimanus* in southern Japan. *Jap. J. Ichthyol.*, 22 : 175-178, 2 figs.

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